

Colorado Basin Outlook Report FEBRUARY 1, 2002



Basin Outlook Reports and Federal - State - Private Cooperative Snow Surveys

For more water supply and resource management information, contact:

Michael A. Gillespie
Data Collection Office Supervisor
USDA, Natural Resources Conservation Service
655 Parfet St., Rm E200C
Lakewood, CO 80215-5517
Phone (720) 544-2852

How forecasts are made

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snow courses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

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COLORADO

WATER SUPPLY OUTLOOK REPORT

FEBRUARY 1, 2002

Summary

Dry conditions prevailed across the state for another month in January. As a result, snowpack percentages continued to decrease and most of the state is now reporting a well below average snowpack. Given the current snowpack, coupled with this date, a below average runoff season is nearly certain for the state. To only worsen the situation, reservoir storage remains below average nearly statewide. Runoff forecasts call for below normal volumes, statewide, with extremely low volumes projected in a few basins. At this point, only a dramatic and sustained shift in weather patterns will significantly improve the state's water supply outlook.

Snowpack

The state's snowpack decreased this month to 58% of average. This is the lowest snowpack on this date since 1981 and 1977, which were both only 37% of average. The lowest basin snowpack percentages are reported in the Rio Grande and South Platte, at 48 and 49 percent of average, respectively. The state's highest snowpack percentage is in the Colorado Basin at 70% of average. Since last month's surveys, conditions deteriorated the most across southwestern Colorado. Decreases in percent of average snowpack of 14% and 15% were measured in the Gunnison, and the combined San Juan, Animas, Dolores, and San Miguel basins, respectively. Only the Arkansas Basin saw a slight increase, of 3%, this month. In comparison to last year's snowpack, the current statewide readings are 72% of last year. As expected, all basins are reporting less snowpack than last year, ranging from 87% of last year in the Colorado Basin, to a low of only 50% of last year in the Rio Grande Basin. Unlike most low snowpack years, where only a portion of the state is severely affected, this year's dryness is prevalent across the state. With only 40% of the typical snow accumulation season remaining, it seems very unlikely that a near average snowpack can be attained by April. In fact, to reach that goal more than an inch of water equivalent per week will need to be added to the state's snowpack. Water users will need to continue closely monitoring the state's weather patterns as conditions change.

Precipitation

January was another very dry month at Colorado's SNOTEL sites. Once again, all basins were reporting well below average monthly totals. Percents of average, for the month of January, range from a low of only 26% in the San Juan, Animas, Dolores, and San Miguel basins, to a high of only 68% of average in the South Platte Basin. Statewide, precipitation at SNOTEL sites was only 53% of average. This marks the fifth consecutive month with all basins reporting below average totals for the month. The state has not seen a near average month of precipitation since August 2001. As expected from this, water year totals are well below average, statewide. Basin percents of average for the water year range from a high of 70% in the Colorado Basin, to a low of only 54% in both the Rio Grande and the combined San Juan, Animas, Dolores, and San Miguel basins. Statewide, the current water year totals are only 64% of average.

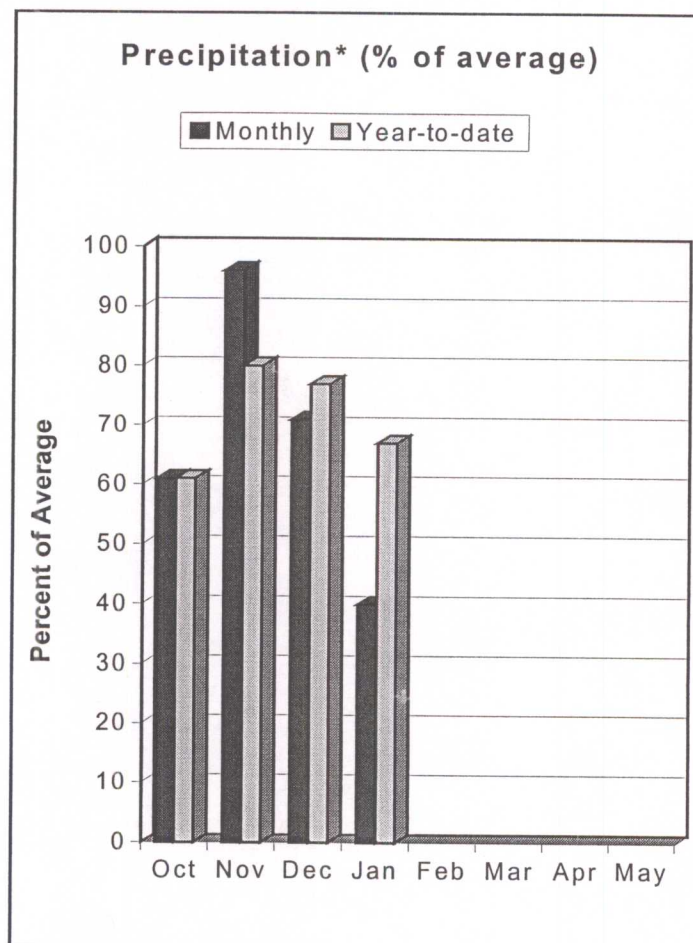
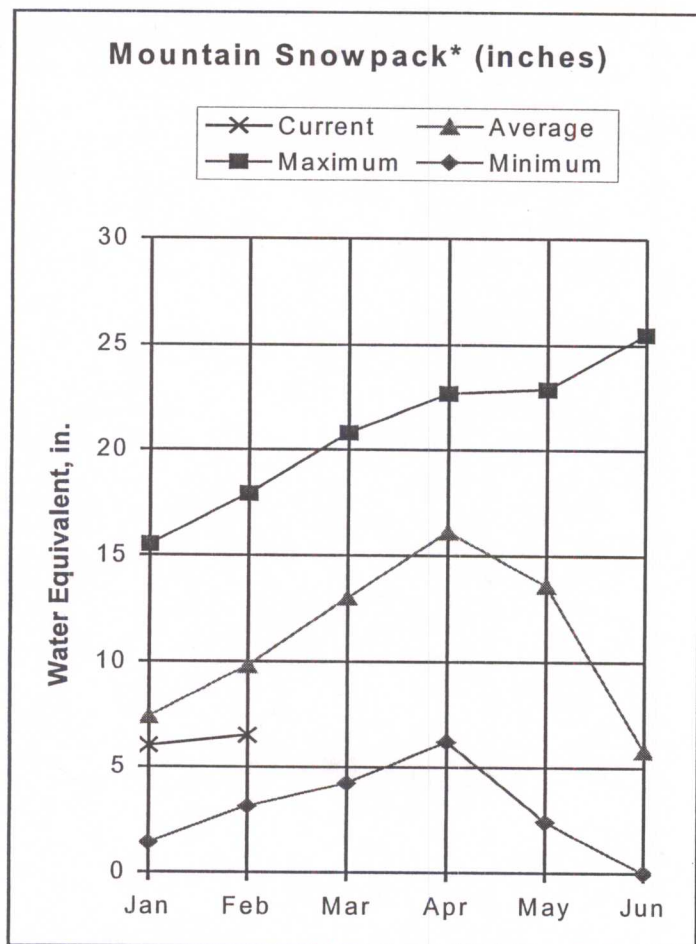
Reservoir Storage

The impact of several dry years is taking its toll on the state's reservoirs. Statewide storage is 87% of average, and is 91% of last year. This month's data shows below average storage in all basins except the Gunnison, at 105% of average, and the Yampa and White, at 104% of average. The lowest percent of average storage is reported in the Rio Grande, at only 74%. One aspect of this water year, which sets it apart from many other recent dry years, is the lack of available water, which can be relied upon to supplement low runoff volumes. Those impacts can be expected to be most apparent as we enter the late summer months, providing our weather patterns don't improve. For example, this year's statewide storage is about 1.4 million acre-feet less than at this time in 2000.

Streamflow

Due to the continued dry conditions, the prospects for adequate water supplies across Colorado continued to diminish this month. Forecasted runoff for this demand season remains well below average across most of the state. The highest runoff forecasts, which only range from 70 to 80 percent of average, occur in the San Miguel and upper Uncompaghre basins of Southwestern Colorado, in the Roaring Fork, Eagle and Blue rivers in central Colorado, and in the Colorado River headwaters and Boulder Creek in northern Colorado. Elsewhere across the state, forecasted runoff can only be expected to range from 50 to 70 percent of average. A few basins can even expect less than 50% of average runoff this year. Those include the headwaters of the North and South Platte rivers. The current moisture deficit, which has now developed over a 5-month period, will not be easily overcome. As a result of the lack of high elevation snow, water users will see streamflow levels return to baseflow levels earlier than normal. Minimum streamflow levels may also pose a problem in late summer in some areas. Water users should plan accordingly now for reduced water supplies in the 2002 water year.

GUNNISON RIVER BASIN as of February 1, 2002



*Based on selected stations

The February 1 snowpack measurements in the Gunnison Basin indicate that there is only 63% of average accumulation at this time. Such small amounts of snow fell during January that the measurements have gone down 14% of average from last month's measurements. There is only 83% of the amount of snow there was last year at this time. All of the basin's watersheds are much below average, ranging from only 55% of average in the Surface Creek Watershed, to only 66% of average in the Uncompahgre Watershed. Precipitation was a measly 40% of average during the month of January, causing the water year total to drop from 77% of average on January 1, to only 67% of average on February 1. The combined storage for 8 major reservoirs in the basin is about 5% above average for this time of year. There is 6% more storage than last year on February 1. Streamflow forecasts remain well below average, and have gone down significantly from last month. They are highly variable, ranging from only 43% of average on Tomichi Creek at Gunnison, to 84% of average on the Slate River near Gunnison.

GUNNISON RIVER BASIN
Streamflow Forecasts - February 1, 2002

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		=====		Chance Of Exceeding *		=====		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Taylor River blw Taylor Park Resv	APR-JUL	35	55	65	63	81	105	103
Slate River nr Crested Butte	APR-JUL	56	67	75	84	84	98	89
East River at Almont	APR-JUL	69	106	130	68	154	196	192
Gunnison River nr Gunnison	APR-JUL	109	187	240	62	293	402	390
Tomichi Creek at Sargents	APR-JUL	9.0	14.4	18.0	56	25	34	32
Cochetopa Creek blw Rock Creek	APR-JUL	4.6	7.3	9.1	53	12.5	17.5	17.3
Tomichi Creek at Gunnison	APR-JUL	15.4	23	35	43	50	80	81
Lake Fork at Gateview	APR-JUL	45	70	85	68	107	130	126
Blue Mesa Reservoir Inflow	APR-JUL	187	369	445	62	567	749	720
Paonia Reservoir Inflow	MAR-JUN	20	39	58	55	81	110	105
	APR-JUL	20	36	58	55	86	110	106
N.F. Gunnison River nr Somerset	APR-JUL	102	150	187	61	228	297	305
Surface Creek nr Cedaredge	APR-JUL	3.9	8.4	10.0	59	11.9	18.0	17.1
Ridgway Reservoir Inflow	APR-JUL	44	59	68	72	79	110	95
Uncompahgre River at Colona	APR-JUL	31	67	82	59	98	150	139
Gunnison River nr Grand Junction	APR-JUL	281	697	825	53	1071	1607	1560

GUNNISON RIVER BASIN
Reservoir Storage (1000 AF) - End of January

GUNNISON RIVER BASIN
Watershed Snowpack Analysis - February 1, 2002

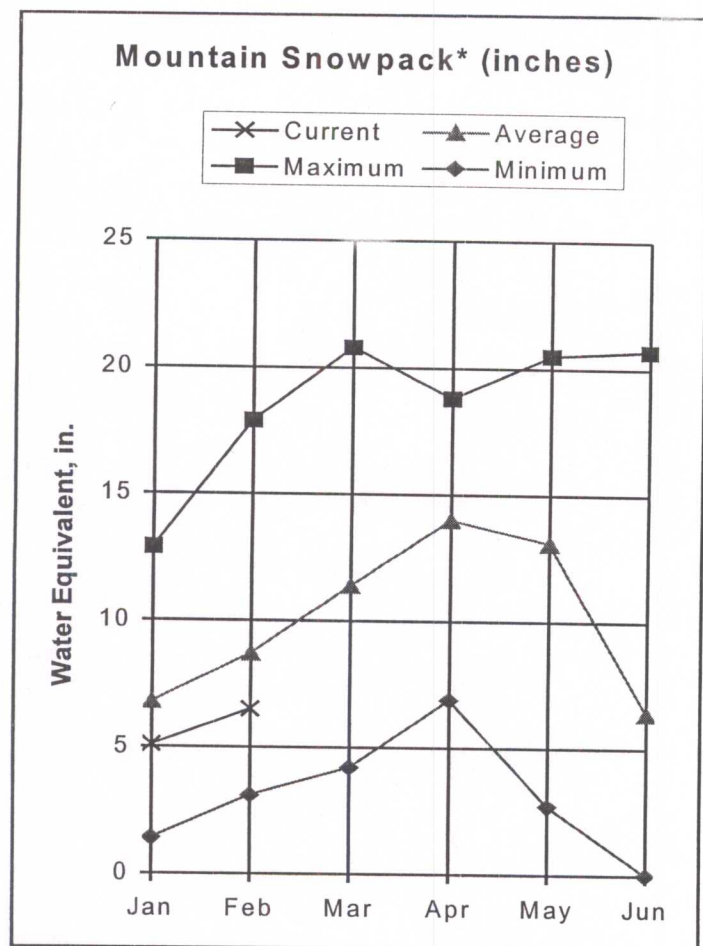
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
BLUE MESA	830.0	533.9	493.8	493.3	UPPER GUNNISON BASIN	11	84	62
CRAWFORD	14.3	3.4	3.9	8.2	SURFACE CREEK BASIN	2	94	55
FRUITGROWERS	4.3	3.4	2.1	3.4	UNCOMPAHGRE BASIN	4	81	66
FRUITLAND	9.2	1.0	0.0	1.8	TOTAL GUNNISON RIVER BASIN	15	83	63
MORROW POINT	121.0	111.4	107.1	113.4				
PAONIA	18.0	2.8	3.1	4.7				
RIDGWAY	83.2	68.4	71.5	60.2				
TAYLOR PARK	106.0	64.8	63.3	66.7				

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

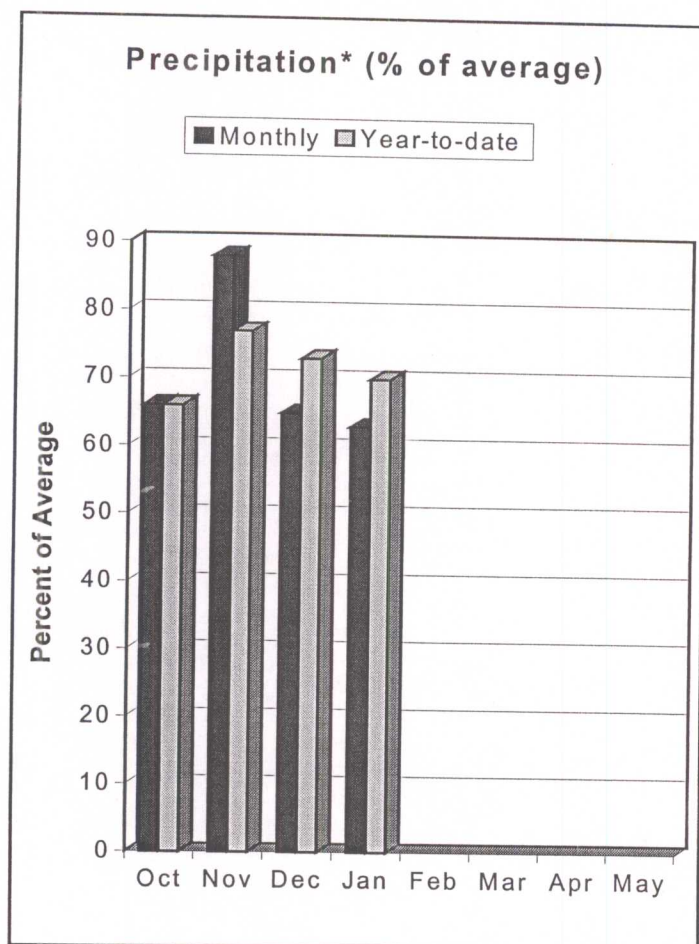
The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

UPPER COLORADO RIVER BASIN as of February 1, 2002



*Based on selected stations



With February 1 snowpack measurements at only 70% of average in the Upper Colorado Basin, it is somewhat surprising that it is the highest snowpack percentage for all of the basins in the state. There is only 87% of the amount of snow there was last year at this time. The snowpack is highly variable throughout the basin, ranging from only 55% of average in the Plateau Creek Watershed, to 75% of average in the Blue and Williams Fork watersheds. The precipitation during January was the lowest monthly accumulation so far this water year, at only 61% of average, and the water year total is now only 70% of average. The combined reservoir storage is about 84% of average on February 1, and is likely to diminish further if the snowpack conditions don't improve. There is only 85% of the storage there was last year at this time. Streamflow forecasts have been lowered slightly since last month and all of them remain well below average. They range from 63% of average at Muddy Creek below Wolford Mtn. Reservoir, to 79% of average flow on the Eagle River below Gypsum.

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UPPER COLORADO RIVER BASIN
Streamflow Forecasts - February 1, 2002

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Forecast Point	Forecast Period	<----- Drier -----		Future Conditions		----- Wetter ----->		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	Chance Of Exceeding * (% AVG.)	30% (1000AF)	10% (1000AF)	
Lake Granby Inflow	APR-JUL	119	144	165	73	189	230	225
Willow Creek Reservoir Inflow	APR-JUL	21	28	33	65	39	48	51
Williams Fork Reservoir inflow	APR-JUL	46	57	65	68	74	87	95
Dillon Reservoir Inflow	APR-JUL	77	106	125	75	152	192	167
Green Mountain Reservoir inflow	APR-JUL	163	193	215	77	238	274	280
Muddy Creek blw Wolford Mtn. Resv.	APR-JUL	22	30	38	63	48	66	60
Eagle River blw Gypsum	APR-JUL	170	222	265	79	317	412	335
Colorado River nr Dotsero	APR-JUL	574	828	1000	69	1233	1576	1440
Ruedi Reservoir Inflow	APR-JUL	70	87	100	71	115	143	141
Roaring Fork at Glenwood Springs	APR-JUL	343	433	500	70	572	686	710
Colorado River nr Cameo	APR-JUL	816	1342	1700	70	2058	2584	2420

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UPPER COLORADO RIVER BASIN
Reservoir Storage (1000 AF) - End of January

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UPPER COLORADO RIVER BASIN
Watershed Snowpack Analysis - February 1, 2002

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Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
DILLON	250.8	206.4	227.3	221.3	BLUE RIVER BASIN	8	91	75
LAKE GRANBY	465.6	218.5	310.7	300.7	UPPER COLORADO RIVER BASIN	31	83	71
GREEN MOUNTAIN	139.0	69.1	47.2	80.3	MUDDY CREEK BASIN	4	80	62
HOMESTAKE	43.0	28.4	42.1	27.7	PLATEAU CREEK BASIN	2	94	55
RUEDI	102.0	65.0	71.7	73.7	ROARING FORK BASIN	7	102	74
VEGA	32.0	9.2	8.9	11.6	WILLIAMS FORK BASIN	4	75	75
WILLIAMS FORK	96.8	56.8	58.1	59.5	WILLOW CREEK BASIN	4	78	62
WILLOW CREEK	9.0	6.6	6.9	6.4	TOTAL COLORADO RIVER BASIN	40	87	70

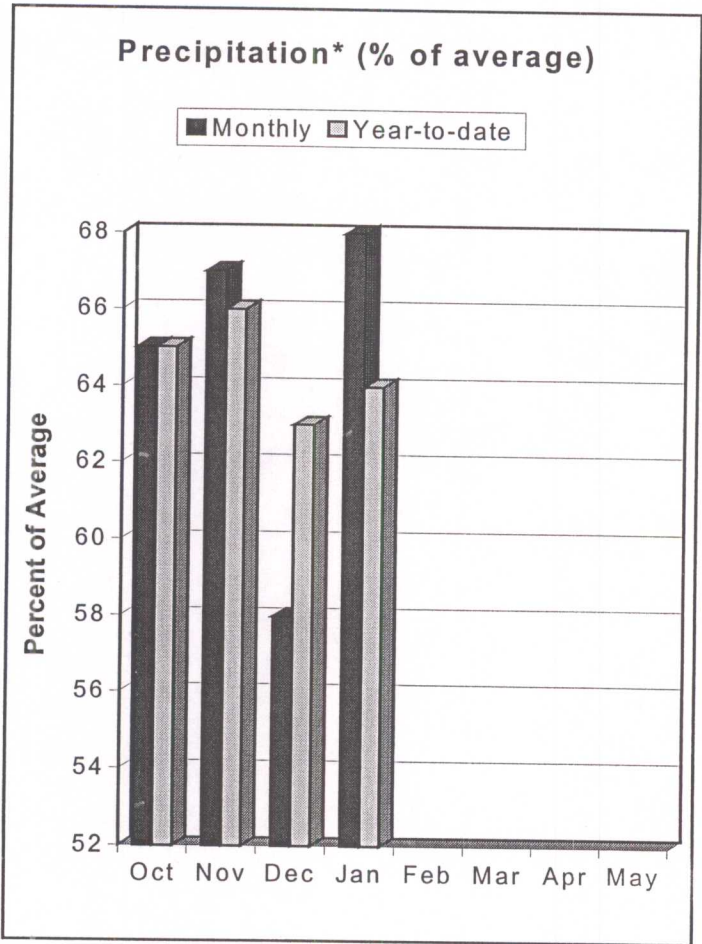
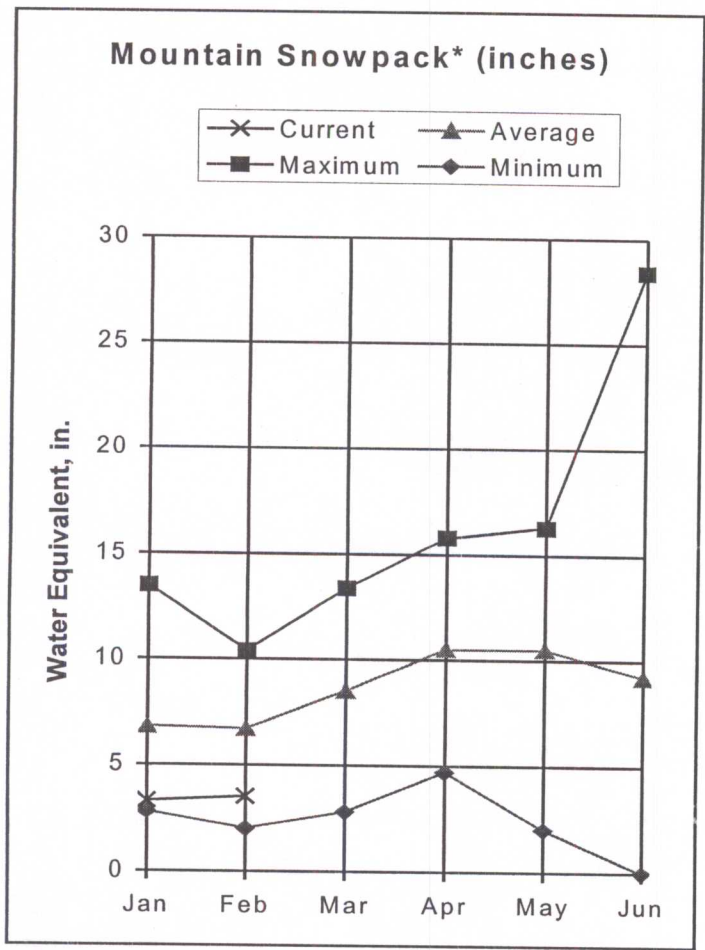
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* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

SOUTH PLATTE RIVER BASIN as of February 1, 2002



*Based on selected stations

January has not provided any relief to the extremely low snowpack conditions in the South Platte Basin. Measurements on February 1 indicate that the amount of snow is only 49% of average, which is 4% of average less than last month, and 23% less than last year on the same date. The snowpack conditions are relatively uniform throughout the Basin, ranging from only 41% of average in the Upper South Platte Watershed, to 59% of average in the Clear Creek Watershed. Precipitation during January was nearly negligible for much of the basin, at only 68% of average, which is the fourth month in a row with below average monthly accumulation. The water year total is now only 64% of average. The combined reservoir storage for 31 major reservoirs in the basin is 83% of average, which is about the same amount of storage as last year at this time. All of the streamflow forecasts for the runoff season are well below average at this time. They are highly variable ranging from only 20% of average at the Inflow to Antero Reservoir, to 72% of average on Boulder Creek near Orodell.

SOUTH PLATTE RIVER BASIN
Streamflow Forecasts - February 1, 2002

Forecast Point	Forecast Period	<<===== Drier =====>>		Future Conditions		===== Wetter =====>>		30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
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Antero Reservoir inflow	APR-JUL	1.2	1.9	2.6	20	3.6	5.8	13.0
Spinney Mountain Reservoir inflow	APR-JUL	8.6	12.1	15.3	35	19.3	27	44
Elevenmile Canyon Reservoir inflow	APR-JUL	7.9	11.1	13.2	30	20	31	44
Cheesman Lake inflow	APR-JUL	19.6	26	31	34	37	49	90
South Platte River at South Platte	APR-SEP	59	86	105	46	145	205	230
Bear Creek at Morrison	APR-SEP	8.8	12.5	15.0	48	20	27	31
Clear Creek at Golden	APR-SEP	63	77	87	65	102	123	134
St. Vrain Creek at Lyons	APR-SEP	34	48	58	69	68	83	84
Boulder Creek nr Orodell	APR-SEP	24	32	38	72	44	52	53
South Boulder Creek nr Eldorado Spri	APR-SEP	16.9	25	31	67	40	52	46
Big Thompson River at mouth nr Drake	APR-SEP	51	69	81	69	93	111	117
Cache La Poudre at Canyon Mouth	APR-SEP	101	151	185	67	236	310	275
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SOUTH PLATTE RIVER BASIN
Reservoir Storage (1000 AF) - End of January

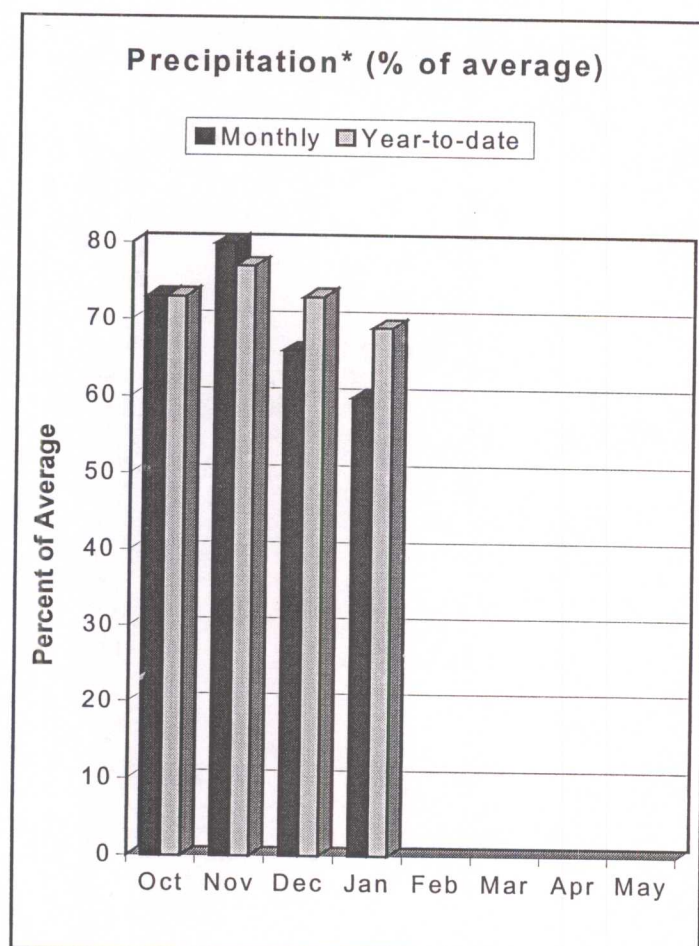
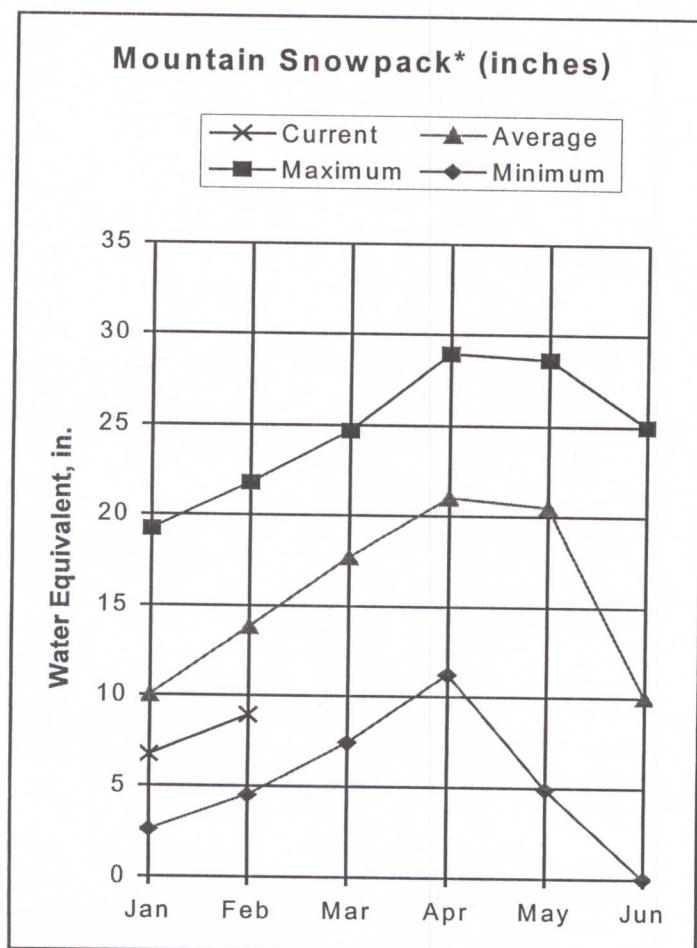
SOUTH PLATTE RIVER BASIN
Watershed Snowpack Analysis - February 1, 2002

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
ANTERO	20.0	20.0	20.0	16.4	BIG THOMPSON BASIN	6	82	54
BARR LAKE	32.0	24.8	26.6	24.0	BOULDER CREEK BASIN	5	92	50
BLACK HOLLOW	8.0	2.8	2.6	3.9	CACHE LA POUDRE BASIN	7	68	50
BOYD LAKE	49.0	20.4	22.3	32.1	CLEAR CREEK BASIN	4	73	59
CACHE LA POUDRE	10.0	2.4	4.9	7.2	SAINT VRAIN BASIN	3	125	57
CARTER	108.9	77.2	87.3	84.6	UPPER SOUTH PLATTE BASIN	16	66	41
CHAMBERS LAKE	9.0	3.1	2.9	3.0	TOTAL SOUTH PLATTE BASIN	39	75	49
CHEESMAN	79.0	57.8	46.6	59.7				
COBB LAKE	34.0	6.9	8.9	13.9				
ELEVEN MILE	97.8	99.6	98.6	95.9				
EMPIRE	38.0	30.3	23.8	22.8				
FOSSIL CREEK	12.0	7.1	8.4	6.8				
GROSS	41.8	22.5	20.5	26.0				
HALLIGAN	6.4	4.3	6.0	4.3				
HORSECREEK	16.0	11.9	13.0	11.6				
HORSETOOTH	149.7	13.4	16.6	99.0				
JACKSON	35.0	20.0	19.7	26.1				
JULESBURG	28.0	14.7	14.6	18.8				
LAKE LOVELAND	14.0	10.3	9.2	8.7				
LONE TREE	9.0	8.5	7.7	6.4				
MARIANO	6.0	1.5	3.7	4.2				
MARSHALL	10.0	4.8	5.9	5.1				
MARSTON	13.0	16.2	2.8	12.8				
MILTON	24.0	16.5	17.7	15.5				
POINT OF ROCKS	70.0	45.9	44.4	57.0				
PREWITT	33.0	17.9	22.3	19.3				
RIVERSIDE	63.1	42.6	44.2	41.7				
SPINNEY MOUNTAIN	48.7	22.1	18.2	33.3				
STANDLEY	42.0	32.6	32.6	33.1				
TERRY LAKE	8.0	5.1	5.3	5.3				
UNION	13.0	9.2	9.6	10.6				
WINDSOR	19.0	5.5	9.5	10.8				

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table. The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

YAMPA, WHITE, NORTH PLATTE AND LARAMIE RIVER BASINS as of February 1, 2002



*Based on selected stations

These basins received more snow accumulation than any of the other basins in Colorado during January. Yet, despite the relatively promising snowfall, snowpack measurements indicate that these basins snowpack amounts remain well below average, and the percentages are less than last month. The North Platte Basin is only at 58% of average on February 1, while the Yampa and White basins combined are only at 66% of average. Snow accumulation ranges from 44% of average in the Laramie Watershed, to 67% of average in the Yampa Watershed. Precipitation in these basins during January was the lowest monthly accumulation this water year, at only 60% of average, and the water year total is only 69% of average. The two major reservoirs in these basins are at 104% of average storage volume for this time of year, which is 90% of the storage volume last year at this time. Streamflow forecasts for the runoff season are well below average at all of the forecasted streamflow points. Forecasts range from only 44% of average on the North Platte River near Northgate, to 71% of average at Elkhead Creek near Maynard Gulch.

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YAMPA, WHITE, AND NORTH PLATTE RIVER BASINS
Streamflow Forecasts - February 1, 2002

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		Future Conditions							
Forecast Point	Forecast Period	<<----- Drier -----				----- Wetter ----->>			
		Chance Of Exceeding *						30-Yr Avg. (1000AF)	
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)		
North Platte River nr Northgate	APR-SEP	71	100	120	44	165	232	270	
Laramie River nr Woods	APR-SEP	40	62	78	58	105	144	135	
Yampa R abv Stagecoach Res	APR-JUL	11.5	16.5	20	69	25	32	29	
Yampa River at Steamboat Springs	APR-JUL	104	152	185	66	218	266	280	
Elk River nr Milner	APR-JUL	130	178	215	66	255	321	325	
Elkhead Creek nr Elkhead	APR-JUL	13.7	19.6	25	64	32	46	39	
ELKHEAD CREEK blw Maynard Gulch	APR-JUL	22	34	42	71	54	71	59	
Fortification Ck nr Fortification	MAR-JUN	2.34	4.04	5.20	69	6.88	9.34	7.50	
Yampa River nr Maybell	APR-JUL	302	497	630	64	763	958	990	
Little Snake River nr Slater	APR-JUL	56	75	90	57	106	132	159	
LITTLE SNAKE R nr Dixon	APR-JUL	113	153	180	55	229	301	330	
LITTLE SNAKE R nr Lily	APR-JUL	123	163	190	52	241	315	365	
White River nr Meeker	APR-JUL	131	163	190	66	221	276	290	

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YAMPA, WHITE, AND NORTH PLATTE RIVER BASINS
Reservoir Storage (1000 AF) - End of January

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Reservoir	Usable Capacity	*** Usable Storage ***		
		This Year	Last Year	Avg
STAGECOACH	33.3	28.2	29.6	25.1
YAMCOLO	9.1	4.2	6.5	6.2

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YAMPA, WHITE, AND NORTH PLATTE RIVER BASINS
Watershed Snowpack Analysis - February 1, 2002

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Watershed	Number of Data Sites	This Year as % of	
		Last Yr	Average
LARAMIE RIVER BASIN	3	70	44
NORTH PLATTE RIVER BASIN	5	77	61
TOTAL NORTH PLATTE BASIN	7	77	58
ELK RIVER BASIN	2	80	60
YAMPA RIVER BASIN	11	84	67
WHITE RIVER BASIN	4	84	65
TOTAL YAMPA AND WHITE RIV	14	83	66
LITTLE SNAKE RIVER BASIN	8	88	68

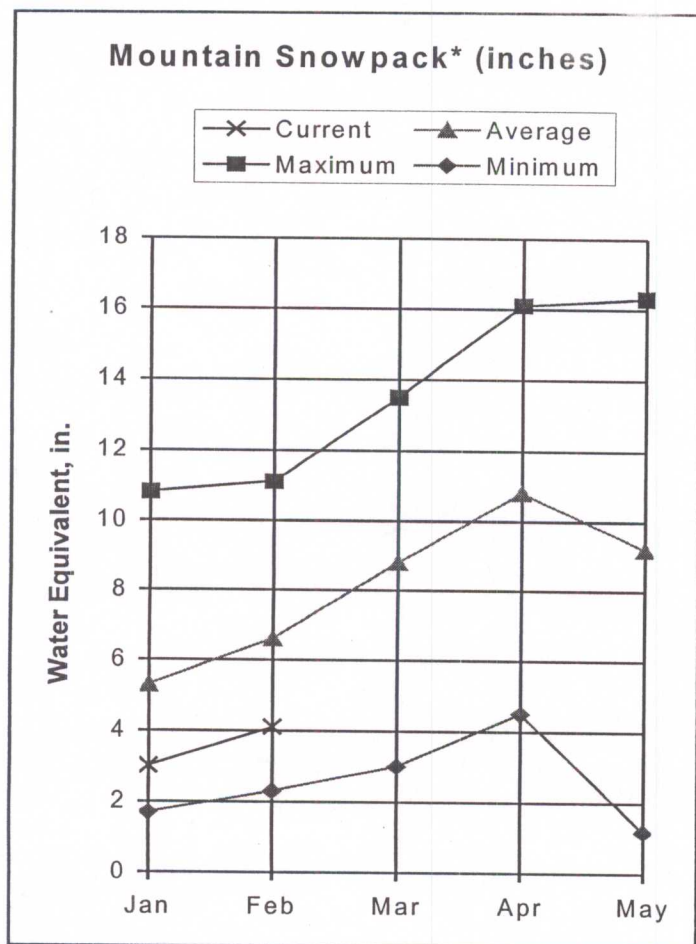
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* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

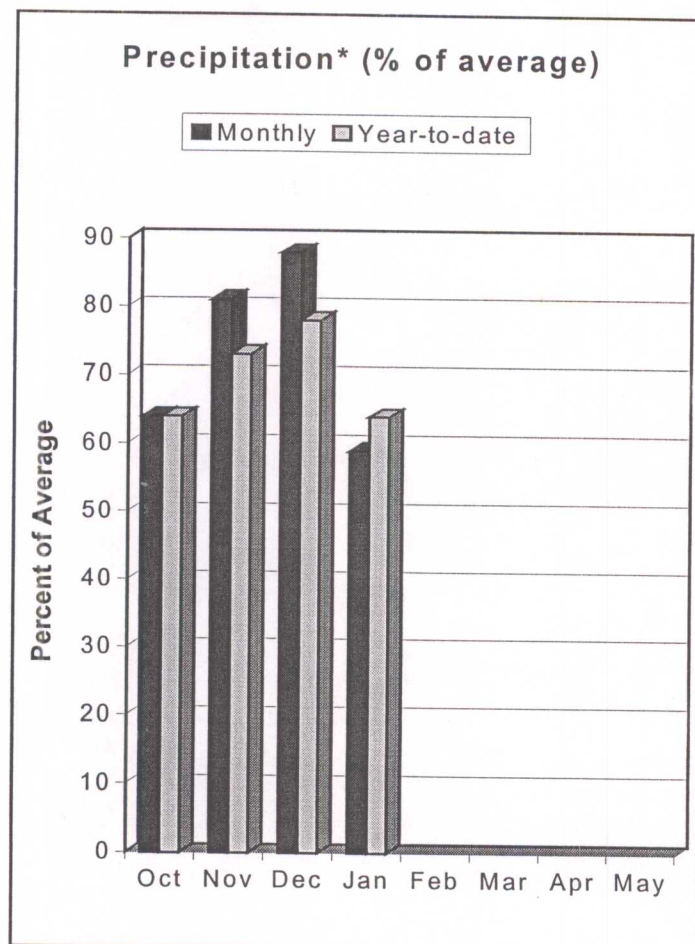
The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

ARKANSAS RIVER BASIN as of February 1, 2002



*Based on selected stations



The Arkansas Basin is the only basin in the state in which the snowpack percentage was higher this month compared to last month. The snowpack accumulation in the basin is only 58% of average on February 1, but that is 3% of average higher than last month. There is only 82% of the snow accumulation there was last year at this time. Snowpack percentages are relatively uniform throughout the basin, ranging from 51% of average in the Cucharas and Huerfano watersheds, to 66% of average in the Upper Arkansas Watershed. The precipitation during January was the lowest monthly accumulation this water year, at only 64% of average. The water year total is now only 85% of average. The combined reservoir storage is only 78% of average, which is the same as last month, but can be expected to fall if snowpack conditions do not improve over the next two months. There is 34% less water stored than there was last year at this time. All of the streamflow forecasts are below average at this time. They range from only 51% of average on the Cucharas River near La Veta, to 70% of average on the Arkansas River at Salida.

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ARKANSAS RIVER BASIN
Streamflow Forecasts - February 1, 2002

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Forecast Point	Forecast Period	<----- Drier -----		Future Conditions		----- Wetter ----->		30-Yr Avg. (1000AF)
		=====		Chance Of Exceeding *		=====		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Chalk Creek nr Nathrop	APR-SEP	6.5	12.8	17.1	63	24	34	27
Arkansas River at Salida	APR-SEP	136	185	218	70	266	336	310
Grape Creek nr Westcliffe	APR-SEP	3.0	4.7	11.3	58	19.6	32	19.6
Pueblo Reservoir Inflow	APR-SEP	161	221	262	61	328	425	430
Huerfano River nr Redwing	APR-SEP	3.4	7.0	9.5	61	13.6	19.5	15.5
Cucharas River nr La Veta	APR-SEP	3.0	4.4	6.6	51	11.3	18.2	13.0
Trinidad Lake Inflow	APR-SEP	14.7	20	30	68	45	68	44

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ARKANSAS RIVER BASIN
Reservoir Storage (1000 AF) - End of January

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ARKANSAS RIVER BASIN
Watershed Snowpack Analysis - February 1, 2002

=====

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
ADOBE	70.0	26.1	47.5	31.1	UPPER ARKANSAS BASIN	3	82	66
CLEAR CREEK	11.0	5.9	5.2	6.4	CUCHARAS & HUERFANO RIVER	4	90	51
GREAT PLAINS	150.0	24.8	66.8	35.2	PURGATOIRE RIVER BASIN	2	79	55
HOLBROOK	7.0	4.3	5.6	3.9	TOTAL ARKANSAS RIVER BASIN	8	82	58
HORSE CREEK	28.0	0.0	0.0	12.2				
JOHN MARTIN	335.7	78.0	150.0	120.9				
LAKE HENRY	8.0	3.0	2.8	4.1				
MEREDITH	42.0	18.0	14.6	16.2				
PUEBLO	236.7	128.5	203.6	158.3				
TRINIDAD	72.3	17.0	31.4	25.3				
TURQUOISE	126.6	74.1	68.3	82.7				
TWIN LAKES	86.0	44.7	42.7	44.8				

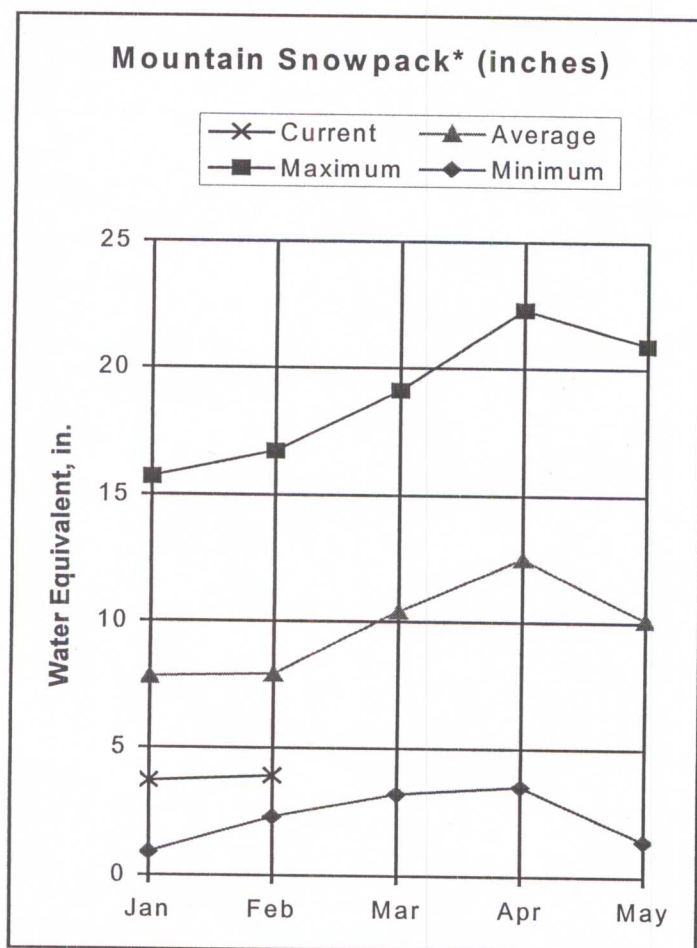
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* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

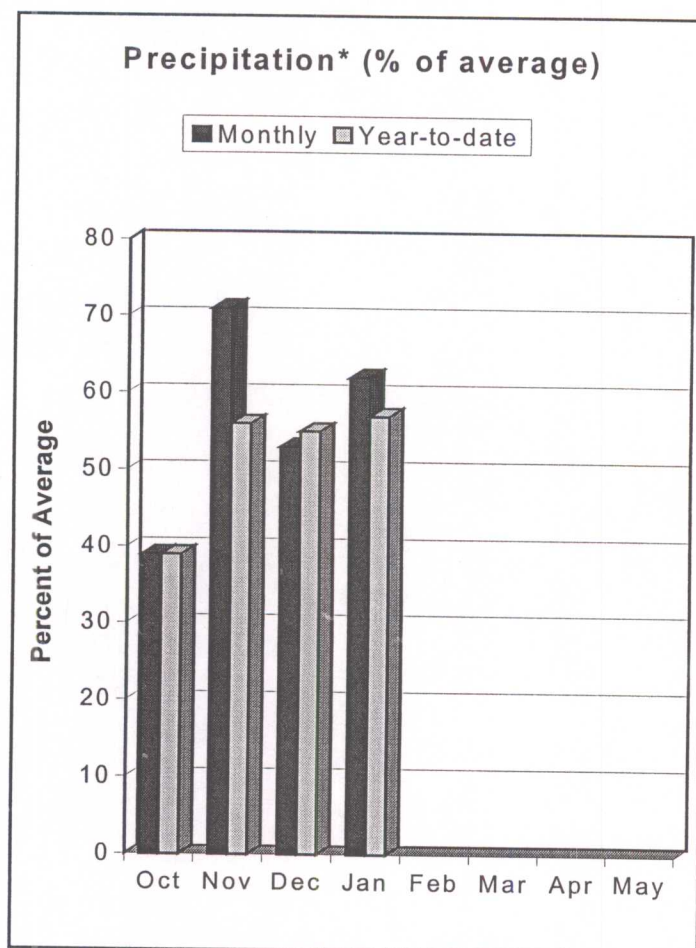
The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

UPPER RIO GRANDE BASIN as of February 1, 2002



*Based on selected stations



The snowpack measurements in the Upper Rio Grande Basin remain at only 48% of average, which is the same as last month and still the lowest percentage in the state. The amount of snow is only 50% of the amount there was last year. All of the watersheds in the basin have snowpacks that measure much below average, ranging from only 40% of average in the Upper Rio Grande Watershed, to 60% of average in the Culebra and Trinchera Creek watersheds. The precipitation during January was nearly negligible, as only 57% of the average monthly amount fell during the month. The water year total precipitation since October 1 is only 56% of average. Reservoirs in the basin have a storage level of only 74% of average on February 1, which is likely to decrease if the amount of snowpack does not increase significantly in the next few months. Streamflow forecasts for the runoff season are well below average at all of the forecast points. They range from only 40% of average on La Jara Creek near Capulin, to 61% of average on Culebra Creek near Costilla.

UPPER RIO GRANDE BASIN
Streamflow Forecasts - February 1, 2002

Forecast Point	Forecast Period	<<----- Drier -----		Future Conditions -----		----- Wetter ----->>		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
Rio Grande at Thirty Mile Bridge	APR-SEP	54	67	78	57	91	113	136
Rio Grande Reservoir Inflow	APR-JUL	48	60	70	59	81	101	118
Rio Grande at Wagon Wheel Gap	APR-SEP	124	163	190	55	242	320	345
South Fork Rio Grande at South Fork	APR-SEP	46	58	66	50	85	114	132
Rio Grande nr Del Norte	APR-SEP	180	237	275	52	364	496	531
Saguache Creek nr Saguache	APR-SEP	9.6	15.2	19.0	58	26	37	33
Alamosa Creek abv Terrace Reservoir	APR-SEP	27	35	40	57	51	68	70
La Jara Creek nr Capulin	MAR-JUL	1.99	2.89	3.50	40	5.68	8.88	8.70
Trinchera Water Supply	APR-SEP	6.4	15.7	22	55	34	50	40
Platoro Reservoir Inflow	APR-JUL	28	34	38	59	46	57	64
	APR-SEP	31	38	42	59	50	63	71
Conejos River nr Mogote	APR-SEP	82	104	120	60	151	197	200
San Antonio River at Ortiz	APR-SEP	4.5	5.9	9.5	58	13.9	22	16.4
Los Pinos River nr Ortiz	APR-SEP	25	35	42	57	57	79	74
Culebra Creek at San Luis	APR-SEP	3.9	9.9	14.0	61	21	31	23
Costilla Reservoir inflow	MAR-JUL	3.3	4.8	5.9	56	7.8	10.6	10.6
Costilla Creek nr Costilla	MAR-JUL	8.1	11.6	14.0	54	18.6	25	26

UPPER RIO GRANDE BASIN
Reservoir Storage (1000 AF) - End of January

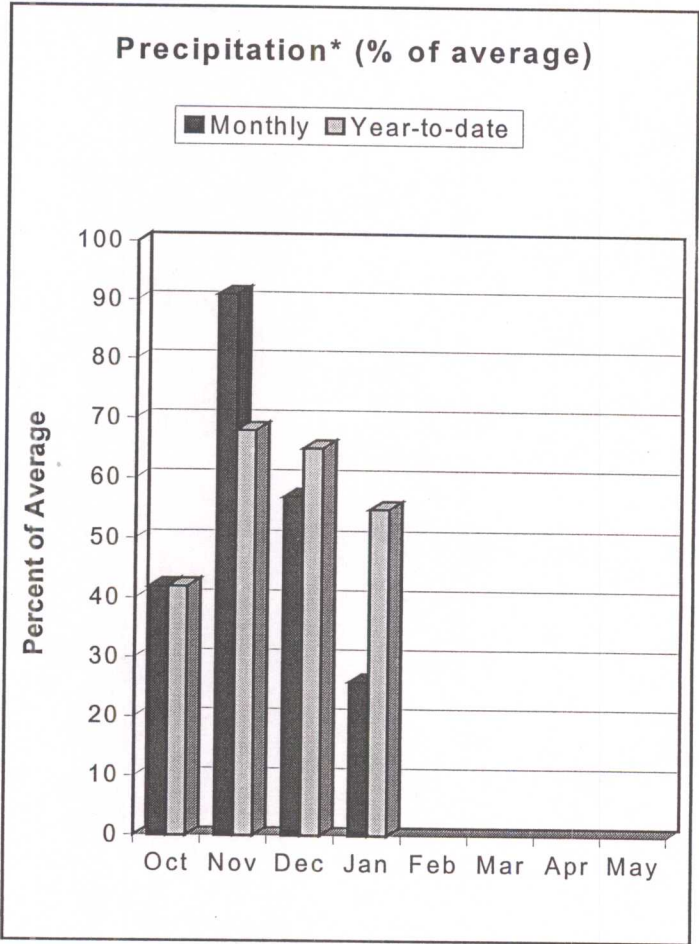
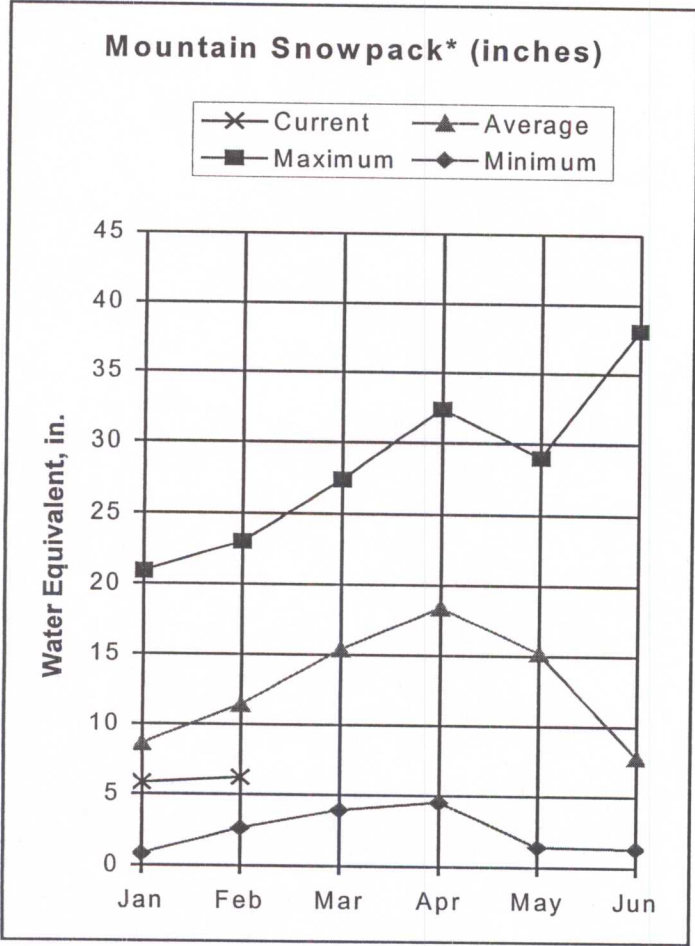
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	UPPER RIO GRANDE BASIN Watershed Snowpack Analysis - February 1, 2002		
		This Year	Last Year	Avg		Number of Data Sites	This Year as % of Last Yr	% of Average
CONTINENTAL	15.0	2.7	4.7	5.8	ALAMOSA CREEK BASIN	2	77	59
PLATORO	53.7	17.0	13.9	24.7	CONEJOS & RIO SAN ANTONIO	5	60	52
RIO GRANDE	51.0	11.0	12.1	16.5	CULEBRA & TRINCHERA CREEK	4	78	60
SANCHEZ	103.0	23.6	25.9	24.1	UPPER RIO GRANDE BASIN	11	38	39
SANTA MARIA	45.0	7.4	9.7	10.5	TOTAL UPPER RIO GRANDE BA	23	51	48
TERRACE	13.1	3.2	4.8	6.1				

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

SAN MIGUEL, DOLORES, ANIMAS, AND SAN JUAN RIVER BASINS as of February 1, 2002



*Based on selected stations

An almost complete lack of snowfall in these basins during January has caused their combined snowpack measurements to drop from 66% of average on January 1, to only 51% of average on February 1. There is only 56% of the amount of snow there was last year at this time. The snowpack is highly variable throughout the basin, ranging from 63% of average in the San Miguel Basin to only 37% of average in the San Juan Basin, which is one of the lowest measurements in the State. Precipitation during January was nearly negligible, at only 26% of the average monthly amount. The water year total is now only 55% of average. Reservoirs in the basins have a combined storage level of only 80% of average, and this is not expected to improve unless there is a significant increase in snow accumulation over the next few months. All of the streamflow forecasts for the runoff season are below average. They range from only 50% of average on the Piedra River near Arboles, to 72% of average on the San Miguel River near Placerville.

SAN MIGUEL, DOLORES, ANIMAS, AND SAN JUAN RIVER BASINS
Streamflow Forecasts - February 1, 2002

Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions		----- Wetter ----->		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF) (% AVG.)	Chance Of Exceeding *	30% (1000AF)	10% (1000AF)	
Dolores River at Dolores	APR-JUL	61	124	160	60	196	270	265
McPhee Reservoir inflow	APR-JUL	61	134	180	56	226	320	320
San Miguel River nr Placerville	APR-JUL	40	77	95	72	113	150	132
Gurley Reservoir Inlet	APR-JUL	5.1	7.7	9.5	58	12.6	17.1	16.5
	APRIL			0.80	48			1.66
	MAY			5.80	66			8.83
	JUNE			2.50	54			4.67
	JULY			0.40	30			1.32
Cone Reservoir Inlet	APR-JUL	0.77	1.38	1.80	51	2.62	3.83	3.53
	APRIL			0.15	33			0.46
	MAY			1.00	61			1.64
	JUNE			0.50	48			1.04
	JULY			0.15	40			0.38
Lilylands Reservoir Inlet	APR-JUL	0.94	1.39	1.70	59	2.22	2.98	2.86
	APRIL			0.15	38			0.40
	MAY			1.00	76			1.32
	JUNE			0.40	46			0.87
	JULY			0.15	56			0.27
Rio Blanco at Blanco Diversion	APR-JUL	16.3	25	31	59	41	56	53
Navajo River at Oso Diversion	APR-JUL	22	33	40	58	53	71	69
San Juan River nr Carracus	APR-JUL	109	176	230	57	292	395	405
Piedra River nr Arboles	APR-JUL	72	98	115	50	150	201	230
Vallecito Reservoir Inflow	APR-JUL	54	93	120	59	147	186	205
Navajo Reservoir Inflow	APR-JUL	243	348	420	53	555	754	800
Animas River at Durango	APR-JUL	112	206	270	61	334	428	440
Lemon Reservoir Inflow	APR-JUL	19.7	28	34	59	44	58	58
La Plata River at Hesperus	APR-JUL	8.8	11.9	14.0	56	18.4	25	25
Mancos River nr Mancos	APR-JUL	10.1	16.6	21	53	29	42	40
	APRIL			3.80	66			5.80
	MAY			10.6	67			15.9
	JUNE			5.5	40			13.7
	JULY			1.10	24			4.60

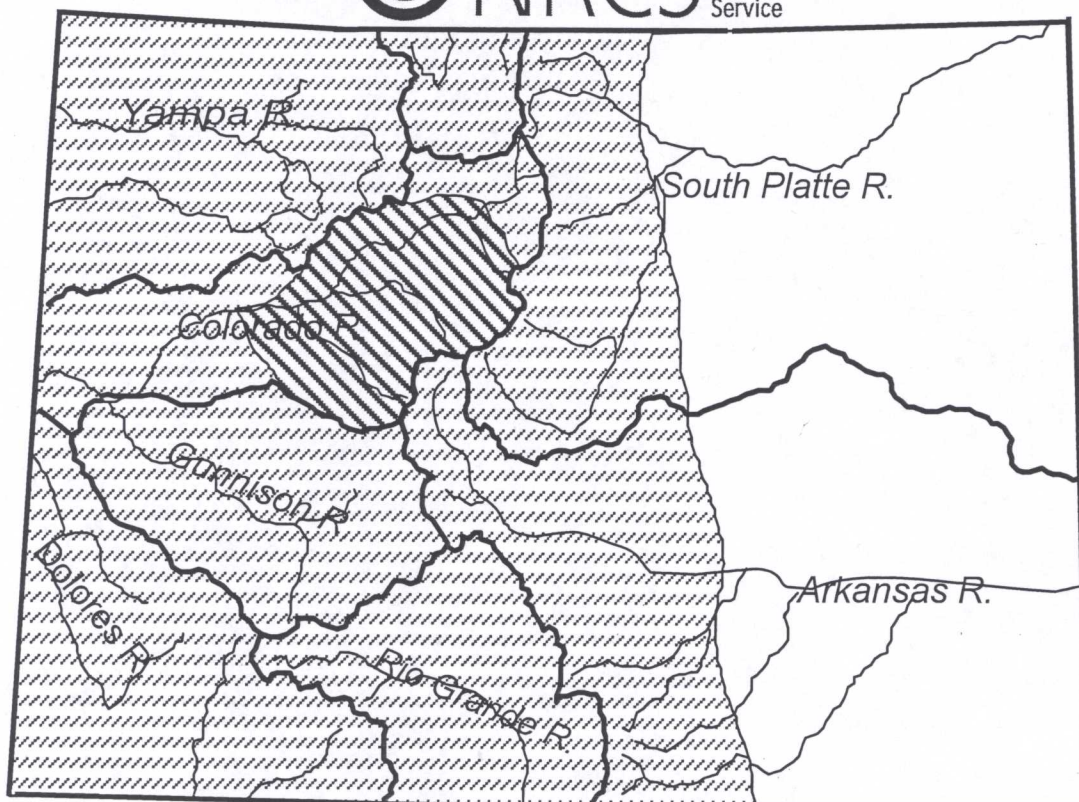
SAN MIGUEL, DOLORES, ANIMAS, AND SAN JUAN RIVER BASINS
Reservoir Storage (1000 AF) - End of January

SAN MIGUEL, DOLORES, ANIMAS, AND SAN JUAN RIVER BASINS
Watershed Snowpack Analysis - February 1, 2002

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
GROUNDHOG	21.7	11.1	11.3	12.0	ANIMAS RIVER BASIN	9	48	48
JACKSON GULCH	10.0	2.3	2.7	4.6	DOLORES RIVER BASIN	7	72	62
LEMON	40.0	12.9	10.0	20.2	SAN MIGUEL RIVER BASIN	5	83	63
MCPHEE	381.2	206.4	219.2	274.4	SAN JUAN RIVER BASIN	3	39	37
NARRAGUINNEP	19.0	18.0	17.2	12.7	TOTAL SAN MIGUEL, DOLORES	23	56	51
VALLECITO	126.0	55.3	45.6	59.4	AN JUAN RIVER BASINS			

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table. The average is computed for the 1971-2000 base period.

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(2) - The value is natural volume - actual volume may be affected by upstream water management.



Snowpack

February 1, 2002

**Statewide: 58% of Average
72% of Last Year**



Much Above Average > 130%



Above Average 110% to 130%



Near Average 90% to 110%



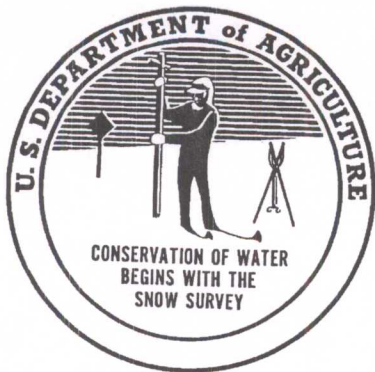
Below Average 70% to 90%



Much Below Average < 70%



Not Measured



655 Parfet Street, Room E200C
Lakewood, CO 80215-5517

In addition to the basin outlook reports, water supply forecast information for the Western United States is available from the Natural Resources Conservation Service and the National Weather Service monthly, January through May. The information may be obtained from the Natural Resources Conservation Service web page at <http://www.wcc.nrcs.usda.gov/water/quantity/westwide.html>.

Issued by

Pearlie S. Reed
Chief
Natural Resources Conservation Service
U.S. Department of Agriculture

Released by

Allen Green
State Conservationist
Natural Resources Conservation Service
Lakewood, Colorado



Colorado
Basin Outlook Report
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